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10/509,312	09/27/2004	Jianming Xu	139370	5423
77216 7590 12/17/2009 ALCATEL-LUCENT C/O GALASSO & ASSOCIATES, LP P. O. BOX 26503 AUSTIN, TX 78755-0503				
EXAMINER				
LIM, STEVEN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/509,312

**Applicant(s)**

XU ET AL.

**Examiner**

STEVEN LIM

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1-3, 5, 9, 11-13, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of Ovesjo et al. (US 20020160785).

4. Regarding Claims 1 and 11, Josse et al. teaches exchanging messages between the Mobile Station (Fig. 1, Item 40) and the Radio Access Network (Fig. 1, Item 30) of a first technology (Base Station System communicates using a Gb interface to the SGSN and to the mobile station using a air interface which is different from a Gn interface, Fig. 1, Col. 4, Lines 45-52) and between the Radio Access Network and the Core Network

(Fig. 1, Item 20) (GGSN communicates with SGSN through a Gn interface and to the Data Network or Internet, Col. 4, Lines 39-45) through a Hybrid Atrium (SGSN, Fig. 1, Item 24, Col. 4, Lines 33-57) where the Hybrid Atrium includes an ability to exchange short messages (Attach Request Message) with the MS (Col. 2, Lines 44-58) directly (Col. 7, Line 23-24, Col. 10, Line 66-67, Fig. 3, Item 3-1 and 3-9, communication occurs directly between MS and SGSN with attach request and attach accept messages where the SGSN uses the BSS as its antenna), however Josse et al. fails to disclose exchanging messages between the MS and the RAN of a first technology and between the RAN of a first technology and the CN of a second technology through a Hybrid Atrium.

5. In an analogous art, Ovesjo et al. discloses a MS communicating with a RAN using a first technology and communicating between the RAN of the first technology and the CN of a second technology through a Hybrid Atrium (MS communicates with RAN using GSM or UMTS and CN communicates with RAN using PSTN or ISDN through BSC or RNC, Paragraphs 27-29), which enables dual mode terminals.

6. It would have been obvious to one having ordinary skill in the art at the time of invention was made to communicate using multiple technologies in order to promote backwards capability and interoperability.

7. Regarding Claims 2 and 12, Josse et al. further teaches initiating a data session by the MS with the Hybrid Atrium (SGSN) through a Base Station (Fig. 1, Items 24 and 30), updating a Home Location Register by the Hybrid Atrium (Col. 2, Lines 44-58),

informing a QoS by the HLR, and negotiating a QoS by the Hybrid MSC (Col. 7, Lines 22-32, and tables 1-3).

8. Regarding Claims 3 and 13, Josse et al. further teaches sending a short message (attach reply) to the MS from the Hybrid Atrium (Col. 7, Lines 52-53) and sending a short message reply (attach request) from the MS to the Hybrid Atrium (Col. 7, Lines 22-23).

9. Regarding Claims 5 and 15, Josse et al. further teaches updating the CN with a data session context update (PDP) through the Hybrid Atrium (update SGSN request, Col. 7, Lines 34-37).

10. Regarding Claims 9 and 19, Josse et al. further teaches exchanging messages includes an ability to handoff between Serving General Packet Radio Service Nodes (SGSN, Col. 6, Lines 1-12, Fig. 1, Item 24<sub>1</sub> and 24<sub>2</sub>).

11. Claims 4, 6, 7, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of Ovesjo et al. (US 20020160785), 3GPP (ETSI TS 123 060 V3.3.0 (2000-04)) and further in view of IETF (The Point-to-Point Protocol (PPP), RFC 1661, July 1994).

12. Regarding Claims 4 and 14, Josse et al. further discloses establishing a connection (PDP Contexts) and data transfer between the Hybrid Atrium and the MS (Col. 4, Lines 45-51, Col. 2, Lines 9-15), however Josse et al. fails to disclose the connection being a direct PPP.

In an analogous art, 3GPP discloses PDPs can be of the type PPP which enables a N-PDU of 1 502 octets (Page 124, Section 9.3).

In an analogous art, IETF defines a PPP connection as direct between two peers (Page ii, Introduction), which enables the PPP to follow established standards.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to establish a PPP connection in order to allow the system to have a N-PDU maximum size of 1 502 octets (Page 124, Section 9.3) and to establish the PPP connection as direct to follow the standard definition of a PPP connection.

13. Regarding Claims 6 and 16, Josse et al. further discloses establishing a connection (PDP Contexts) between the Hybrid Atrium and the MS (Col. 4, Lines 45-51), however Josse et al. fails to disclose the connection being a direct PPP connection, sending a termination request from a Base Station Controller for the MS to the Hybrid Atrium, exchanging messages between the Hybrid Atrium and the CN to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS.

In an analogous art, 3GPP discloses PDPs can be of the type PPP (Page 124, Section 9.3), sending a termination request from a Base Station Controller for the MS to the Hybrid Atrium (SGSN, Page 120, Section 9.2.4.1), exchanging messages between the Hybrid Atrium and the CN to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS (Page 120, Section 9.2.4.1), which enables the system to follow GPRS standards.

In an analogous art, IETF defines a PPP connection as direct between two peers (Page ii, Introduction), which enables the PPP to follow established standards.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to initiate a connection termination from the mobile station because packet data transfer is no longer required and to follow the standards regarding GPRS and to establish the PPP connection as direct to follow the standard definition of a PPP connection.

14. Regarding Claims 7 and 17, Josse et al. further discloses establishing a connection (PDP Contexts) between the Hybrid Atrium and the MS (Col. 4, Lines 45-51), however Josse et al. fails to disclose the connection being a direct PPP connection, sending a termination request from the CN to the Hybrid Atrium, exchanging messages between the Hybrid Atrium and the MS to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS.

In an analogous art, 3GPP discloses PDPs can be of the type PPP (Page 124, Section 9.3), sending a termination request from a CN (internet host) to the Hybrid Atrium (SGSN, Page 122, Section 9.2.4.3), exchanging messages between the Hybrid Atrium and the MN to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS (Page 122, Section 9.2.4.3), which enables the system to follow GPRS standards.

In an analogous art, IETF defines a PPP connection as direct between two peers (Page ii, Introduction), which enables the PPP to follow established standards.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to initiate a connection termination from the core network because packet data transfer is no longer required and to follow the standards regarding GPRS and to establish the PPP connection as direct to follow the standard definition of a PPP connection.

15. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of Weissman (US 20030188319) and Ovesjo et al. (US 20020160785).

16. Regarding Claims 8 and 18, Josse et al. further discloses exchanging messages includes an ability to handoff between Serving General Packet Radio Service Nodes (SGSN, Col. 6, Lines 1-12, Fig. 1, Item 24<sub>1</sub> and 24<sub>2</sub>), however, Josse et al. fails to disclose handoff between Packet Data Service Nodes.

17. In an analogous art, Weissman discloses a combination of SGSN and PDSN to enable the cellular system to communicate with its compatible network (Paragraph 64).

18. It would have been obvious to one having ordinary skill in the art at the time of invention was made to combine and handoff between PDSNs to allow the cellular device to communicate to a compatible network (Paragraph 64).

19. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of Weissman (US 20030188319) and further in view of Grilli et al. (US 20030002525) and Ovesjo et al. (US 20020160785).



20. Regarding Claims 10 and 20, Josse et al. further teaches exchanging messages includes an ability to handoff between Serving General Packet Radio Service Nodes (SGSN, Col. 6, Lines 1-12, Fig. 1, Item 50, 24<sub>1</sub> and 24<sub>2</sub>), however Josse et al. fails to disclose handoff between a PDSN and SGSN.

In an analogous art, Weissman discloses a combination of SGSN and PDSN to enable the cellular system to communicate with its compatible network (Paragraph 64).

In an analogous art, Grilli et al. discloses a hybrid GSM/CDMA network with handoff (Fig. 13).

It would have been obvious to one having ordinary skill in the art at the time of invention was made to handoff between a PDSN and SGSN to allow the cellular device to operate data transmission in a hybrid network.

21. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of Ovesjo et al. and further in view of Weissman (US 20030188319).

22. Regarding Claim 21, Josse et al. teaches exchanging messages between the Mobile Station (Fig. 1, Item 40) and the Radio Access Network (Fig. 1, Item 30)(Base Station System communicates using a Gb interface to the SGSN and to the mobile station using an air interface which is different from a Gn interface, Fig. 1, Col. 4, Lines 45-52) and between the Radio Access Network and the Core Network (Fig. 1, Item 20) (GGSN communicates with SGSN through a Gn interface and to the Data Network or Internet, Col. 4, Lines 39-45) through a Hybrid Atrium (SGSN, Fig. 1, Item 24, Col. 4,

Lines 33-57) where the Hybrid Atrium includes an ability to exchange short messages (Attach Request Message) with the MS (Col. 2, Lines 44-58) directly (Col. 7, Line 23-24, Col. 10, Line 66-67, Fig. 3, Item 3-1 and 3-9, communication occurs directly between MS and SGSN with attach request and attach accept messages where the SGSN uses the BSS as its antenna), a SGSN (SGSN in communication with SGSN, Fig. 1, Item 24<sub>1</sub> and 24<sub>2</sub>), a GGSN (Fig. 1, Item 20), however Josse et al. fails to disclose the Hybrid Atrium exchanging messages with a PDSN and exchanging messages between the MS and the RAN of a first technology and between the RAN of a first technology and the CN of a second technology through a Hybrid Atrium.

23. In an analogous art, Weissman discloses a combination of SGSN and PDSN to enable the cellular system to communicate with its compatible network (Paragraph 64).

24. In an analogous art, Ovesjo et al. discloses a MS communicating with a RAN using a first technology and communicating between the RAN of the first technology and the CN of a second technology through a Hybrid Atrium (MS communicates with RAN using GSM or UMTS and CN communicates with RAN using PSTN or ISDN through BSC or RNC, Paragraphs 27-29), which enables dual mode terminals.

25. It would have been obvious to one having ordinary skill in the art at the time of invention was made use a PDSNs instead of a SGSN to allow the cellular device to communicate to a compatible network (Paragraph 64).

26. It would also have been obvious to one having ordinary skill in the art at the time of invention was made to communicate using multiple technologies in order to promote backwards capability and interoperability.

***Response to Arguments***

Applicant's arguments filed 9/3/2009 have been fully considered but they are not persuasive. Regarding applicant's arguments towards Claims 1, 11, and 21 that the references fail to disclose a RAN using a first technology and communicating between the RAN of the first technology and the CN of a second technology through a Hybrid Atrium, Examiner disagrees because the limitations as broadly claimed and interpreted are disclosed by Josse et al. in view of Ovesjo et al. where Josse et al. discloses a radio access network communicates to a Core Network through a Hybrid Atrium (SGSN, Col. 4, Lines 33-57) and Ovesjo et al. discloses a MS communicating with a RAN using GSM or UMTS and a CN communicating with the RAN using PSTN through a BSC or RNC (Paragraphs 27-29), therefore the combination discloses the limitations. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., utilizing different technologies and the Hybrid Atrium is separate and apart from the BSC) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore the limitations as broadly claimed and interpreted are disclosed as listed above in the Rejection.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **STEVEN LIM** whose telephone number is (571)270-1210. The examiner can normally be reached on **Mon-Thurs 9:00am-4:00pm EST**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. L./  
Examiner, Art Unit 2617

/LESTER KINCAID/  
Supervisory Patent Examiner, Art Unit 2617